lines 17-18. In claims 1, 12, 16, and 20, polymer or pre-polymer is amended to read "hydrophobic" polymer or pre-polymer. Claim 4 is amended to include the word "mix" consistent with claim 1. Claim 5 is cancelled in view of the amendment to claim 1. Claims 6 and 7 are amended to depend from claim 1. Claim 7 is amended to include a comma for clarity. Claim 10 is amended to recite polyproylene as a polymer. No new matter is added by any amendment to any claim.

REMARKS

35 USC 130

The Examiner requests correction of status language. Applicant has so amended the priority claim. The incorrect priority claim occurred through error without deceptive intent. Since application serial no.08/350,432 is still pending, Applicant believes that the amendment for correction presents no difficulty for the priority claim. Claims 1,

Double Patenting

Applicant acknowledges the Examiner's rejection of claims 1-39 under the judicially created doctrine of double patenting over claims 1-36 and disclosure of copending application No. 08/484,967. Applicant prefers to defer a decision as to which claims to cancel until allowable subject matter in one or the other of these cases has been identified. Accordingly, it is respectfully requested that the Examiner make this rejection provisional since no claim is presently allowed.

35 USC 112

The Examiner has rejected claims 1-29 under 35 USC 112, second paragraph, as indefinite.

For claim 34 [sic claims 3 and 4] the Examiner observes lack of antecedent basis for "hydrophobic". Claims 1 and 16 have been amended to recite "hydrophobic" thereby providing the



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necessary antecedent basis and permitting the Examiner to withdraw this rejection.

> For claims 1 and 24, the Examiner says that
>
> it is unclear as to the meaning of "bound" - simple mixing results in binding.

On page 16 of the specification, lines 10-20, it is stated

> When a carrier is added, it has been found that simply adding the carrier to a mix of pesticide and pre-polymer results in poor formability of the controlled-release device and permits evaporation of the pesticide. Accordingly, it is preferred to first mix the pesticide into the carrier so that the pesticide is preferably bound either onto the surface of the carrier or into the bulk volume of the carrier or both. The mix of pesticide and carrier is then added to a pre-polymer. The bound pesticide is retarded or prevented from evaporation during subsequent forming of the polymer.

Accordingly, "bound" means "retarded or prevented from evaporation". It is further clear that "simple" mixing does not result in binding. Directed mixing of carrier with pesticide in the absence of the pre-polymer, or in the absence of an amount of the pre-polymer effective to inhibit binding, is necessary to achieve binding. Thus, contrary to the Examiner's assertion, the term "bound" is clear and unambiguous as described in the specification and it is respectfully requested that the Examiner withdraw this rejection.

> For claim 4, the Examiner says that
>
> it is unclear as to (claim 4) what is intended to be the inner and what is intended to be the outer, parts of a polymer.

Upon studying, claim 4, the undersigned realized that the word "mix" had been omitted with respect to identifying the inner part. Accordingly, by amending claim 4 to include the word "mix", it is believed that claim 4 is now clear and consistent with respect to the specification page 16, line 32 to page 17, line 1, and that this rejection may be withdrawn.



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For claim 7, the Examiner is requiring identification of "low and high density", ""high density polyethylene vinyl acetate", and "low vapor pressure". Claim 7 only recites polymers and does not recite vapor pressure. With respect to high and low density polyethylenes, they are so commonly listed in vendor catalogues, that there is no ambiguity nor lack of definition to one of skill in the art of polymer identification as to how to identify and distinguish them. Should the Examiner choose to maintain this rejection, Applicant will provide vendor catalogue copy supporting this statement. With respect to high density polyethylene vinyl acetate, Applicant notes the omission of a comma, which has now been inserted via amendment. It is respectfully requested that the Examiner withdraw these rejections.

With respect to claim 8 and recitation of "low vapor pressure", Applicant directs the Examiner's attention to the specification page 15, lines 5-21, especially line 7 defining "low vapor pressure" as

in the range of 1 nPa to 100 mPa . . .

Applicant and undersigned believe this to be sufficient definition to permit the Examiner to withdraw this rejection.

For claim 10, the Examiner says that it is incongruous because polyethylene is a polymer, not a prepolymer. Applicant has amended claim 10 to recite such, thereby permitting the Examiner to withdraw this rejection.

Not finding any tradenames in claim 10, Applicant requests clarification of the Examiner's comment with regard to tradenames.

For claim 16, the Examiner says that

"proximate is ambiguous - it is taken to mean near."

Applicant directs the Examiner's attention to page 10, lines 28-30 which state

> . . . proximate soil either within soil, in contact with soil, or sufficiently near soil . . .

Accordingly, since it is well settled law that Applicant may be his own lexicographer, "proximate" means either within, in contact, or sufficiently near. Applicant respectfully requests withdrawal of this rejection.

> The Examiner objects to claims 18 and 19 stating that it is unclear how untouched wood is fully impregnated.

It is first of all pointed out that the language of the claims does not include the words "untouched" or "fully impregnated". For purposes under 35 USC 112, second paragraph, it is respectfully requested that the Examiner clarify his objection to the specific language of the claims and specification to permit the Applicant and undersigned to clearly understand the Examiner's objection. Applicant would say, however, that preventing the insect or pest from reaching the wooden object will retard or prevent decay thereof. Thus, a device that is between the pest and the wooden object that prevents the pest from reaching the wooden object does not necessarily have to be in direct contact with the wooden object to be effective. Applicant respectfully requests withdrawal of this objection.

> For claim 25, the Examiner says that it is unclear reciting "2 polymer envelopes . . ."

Applicant respectfully traverses the Examiner's statement by pointing out that the claim language is clear that there is only one envelope claimed. In claim 25 the "envelope" is like a capsule, "an encapsulation or surrounding of said carrier bound pesticide", wherein the carrier bound pesticide is like powdered medicine and the envelope is like the plastic capsule containing the powdered medicine. In claim 26, the "envelope" is "integration of said carrier bound pesticide within said hydrophobic polymer . . .", wherein the carrier bound pesticide is like metal flake and the envelope is like the paint

integrally containing the metal flake. Applicant believes that claim 25 is not unclear as the Examiner has stated and respectfully requests withdrawal of this rejection.

For claim 26, the Examiner states that

> "common terms seem to now being given uncommon meanings."

Claim 26 has been described in the above paragraph. Support for the concepts claimed in claims 25 and 26 is found in the specification page 16, line 30 to page 17, line 13. Applicant asserts that the term "enveloped" is not given any uncommon meaning, but is clarified with regard to at least two forms. According to Webster's New Collegiate Dictionary, 1979,

> envelop - 1: to enclose or enfold completely with or as with a covering . . .

Consider a box made of wax with marbles placed in the interior of the box. The marbles are enveloped in the wax box. Consider molten wax into which the marbles are put then the wax permitted to harden. Again, the marbles are enveloped in the wax, but in a second physical or geometric form. It is these two forms of enveloping that Applicant is specifically reciting in claims 25 and 26. Neither of the forms is uncommon, nor the word usage to describe them. Accordingly, it is respectfully requested that the Examiner withdraw this rejection.

For claim 29, the Examiner has requested generic identification for the products Mylar and Saran which has been done by amendment thereby permitting the Examiner to withdraw this rejection.

The Examiner has further rejected claims 4, 6, 9, 10, 12, 13, 18-20, 24-29 under 35 USC, first paragraph as non-enabling. The Examiner states

> It is not seen where the polymer has inner part as carrier, outer as casing for same polymer.

The confusion regarding claim 4 has been discussed above and overcome by amending claim 4 to recite "pesticide carrier mix". Claims 24, 25, and 26 have been discussed above for this same

rejection. Accordingly, the Examiner should now be free to withdraw this rejection of claims 4, 24, 25, and 26.

It is not clear to Applicant which of claims 6, 9, 10, 12, 13, 18-20, 27-29 correspond to the Examiner's further remarks in this part of his rejection. The Examiner states

> Copolymer of thermoplastic polymers and thermoset polymer is not disclosed - combinations are. High density or low density prepolymers are not disclosed as being polymerized with other prepolymers.

Applicant simply asks the Examiner to identify the claim(s) reciting such undisclosed copolymer, or, absent such identification, to withdraw the rejection.

The Examiner further states

> It is not shown how to attain efficacy at a distance, within a wooden structure.

This is the same objection as discussed above. Applicant believes that it is not necessary for the pest barrier to be in contact with the wooden structure to be an effective barrier in preventing the pest from reaching the wooden structure. Applicant believes that the specification is not lacking with respect to this point as it is well understood by those of skill in the art of pest barriers.

Finally, the Examiner states

> The enveloping of carriers, pesticides, polymers and parts of polymers is not supported as the claims are written.

Applicant disagrees. The claims are clearly supported by the specification as pointed out above and no claim is not supported by the specification. Applicant respectfully requests that the Examiner be more specific in his identification of what he believes to be deficiencies in the claim language or withdraw this rejection.

35 USC 102

The Examiner has rejected claims 1-13, 16, 18-26 under 35 USC 102(e) as anticipated by Price et al. The Examiner is



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correct that Price et al. show microcapsules containing fungicides. However, applicants carriers are completely different from the carriers of Price et al. In Price et al. col. 9-10, the carriers are selected by

> the viscosity of the carrier and the solubility of the active agent in the carrier. (col. 9, lines 8-9)

All of Price et al.'s carriers are low molecular weight monomers and polymers. In contrast, Applicant does not dissolve the active agent in the carrier, but binds the active agent to the carrier which is in a solid powder form, specifically carbon black and/or hydroxyapatite as in amended claims 1, 16 and 24. According to Perkin-Elmer Corp. v. Computervision Corp. 732 F. 2d 888, 221 USPQ 669 (Fed. Cir. 1984)

> [T]here is no anticipation unless all of the same elements are found in exactly the same situation and united in the same way . . . in a single prior art reference.

Therefore, Applicant respectfully requests withdrawal of this rejection.

The Examiner has rejected claims 1, 2, 8, 9, 11-16, 20-23 under 35 USC 102(e) as anticipated by Anderson. Anderson is completely non-analogous art because there is no mention or suggestion of binding any active agent to a carrier, let alone carbon black or hydroxyapatite. Based upon Perkin-Elmer, cited above, this rejection is simply improper and must be withdrawn.

The Examiner has rejected claims 1-9, 11-15, 24-27 under 35 USC 102(b) as anticipated by Cohen. Cohen fails as a reference under 35 USC 102(b) for two reasons: (1) Applicant's amended claims 1, 16 and 24 clearly recite "hydrophobic polymer" whereas Cohen requires a hydrophillic polymer, and (2) Applicant's amended claims 1, 16 and 24 clearly recite carrier of carbon black and/or hydroxyapatite whereas Cohen requires biological molecule binding agent. Relying again on Perkin-

Elmer cited above, Applicant respectfully requests withdrawal of this rejection.

The Examiner has rejected claims 1, 2, 4-16, 18-27 under 35 USC 102(b) as anticipated by Fahlstrom. The Examiner is incorrect that Fahlstrom uses a carrier. In Example III that the Examiner cites, the PVA was a closure or envelope to seal the liquid within the container. Fahlstrom simply does not combine his active agent with a carrier, nor does he mention or suggest carbon black or hydroxyapatite. By the authority of Perkin-Elmer cited above, it is respectfully requested that this rejection be withdrawn.

Applicant notes that the Examiner made no rejection under 35 USC 102 for claims 17, 28 and 29 which are therefore considered to be free under 35 USC 102 of any of the prior art references cited by the Examiner.

35 USC 103

The Examiner has rejected claims 1-29 under 35 USC 103 as unpatentable over Nitto in view of Price, Cohen, Anderson, Fahlstrom and Itzel. Nitto requires hydrophillic polymer and is therefore non-analogous art. Price, Cohen, Anderson and Fahlstrom have been discussed above. Itzel (col. 2, lines 10-33) describes a two-part device having (1) active substance and (2) "carrier". Itzel's "carrier" is paper, textile fibers, silicates, and carbonates. Applicant's claims are limited to a three-part device of (1) active plus (2) carrier enveloped in (3) hydrophobic polymer. Itzel also discusses a three-part device of (1) active substance, (2) carrier and (3) binder or polymer. However, Itzel nowhere specifically mentions or suggests use of carbon black or hydroxyapatite as carriers as applicant has claimed. Itzel further provides no reason or explanation of function of his carrier other than simply as a carrier or holder of the active agent. In contrast, Applicant's carrier is for the purpose of controlling release

rate and holding more pesticide within the polymer than is possible without the carrier as stated in the specification on page 15, lines 16-25 and again on page 21, lines 17-18 and in amended claims 1, 16 and 24. Thus, with every cited reference lacking the essential feature of carbon black or hydroxyapatite and lacking the unexpected functions of release rate modification and pesticide holding capacity, the cited references fail to set forth a prima facie case of obviousness against the amended claims. Moreover, Applicant has clearly claimed the order of steps and described that order as providing the unexpected result of less evaporation or loss of pesticide (see specification page 16, lines 10-18). Again, none of the cited references mention or suggest any importance of order of steps and their effect on evaporation of pesticide. Lacking this feature, the cited references cannot support a prima facie case of obviousness against Applicant's claims. It is therefore respectfully requested that this rejection be withdrawn.

Given the Examiner's earlier acknowledgment that claims 17, 28 and 29 are free of 35 USC 102, and given that the Examiner has failed to show how the features of claims 17, 28, and 29 are shown or obvious in view of the cited references under 35 USC 103, it is respectfully requested that these claims be held allowable.

CLOSURE

Applicant has made an earnest attempt to place the above referenced application in condition for allowance and action toward that end is respectfully requested. Should the Examiner have any further observations, he is invited to contact the undersigned by telephone for resolution.

Respectfully submitted,

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